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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/766,305      | 01/28/2004  | Philip L. Bohannon   | 15-1-14-2           | 9365             |

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| EXAMINER |
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ADAMS, CHARLES D

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| ART UNIT | PAPER NUMBER |
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2164

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| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
| 3 MONTHS                               | 03/23/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/766,305

Applicant(s)

BOHANNON ET AL.

Examiner

Charles D. Adams

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-10 and 12-19 is/are rejected.
- 7) ☒ Claim(s) 5 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Remarks***

1. In response to communications filed on 26 December 2006, claims 5-11 are amended. Claims 1-19 are pending in the application.

Applicant filed a Rule 131 Declaration on 26 December 2006.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-4, 7-10 and 12-19 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Specifically, the claimed subject matter does not produce a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for determining whether or not an update can be made of a database. Though a determination occurs, nothing is done upon evaluating the results of this determination. There is no output to the user and nothing is being done with the determination. This produced result remains in the abstract and, thus, fails to achieve the required status of having real world value.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitations “the correlation predicates” in line 4, “the inserted subtree” in line 5, “the key of the element base view” in lines 5-6, “said corresponding tuple” in line 7, and “the foreign-key values” in line 7. There is insufficient antecedent basis for these limitations in the claim.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 4, 12, 15-16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barsalou et al. (“Updating Relational Databases through Object-Based Views”) in view of Wang et al. (“Updating XQuery Views Published over Relational Data: A Round-trip Case Study”).

As to claim 1, Barsalou et al. does not teach a method for determining if an update to an XML document can be reflected in an underlying relational database,

Wang et al. teaches a method for determining if an update to an XML document can be reflected in an underlying relational database, wherein said XML document is comprised of a tree of nodes (see page 1, first paragraph)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Barsalou et al. by the teaching of Wang et al., since Wang et al. teaches that "XML has become the standard for interchanging data between web applications because of its modeling flexibility" (page 1, first paragraph)

Barsalou et al. as modified teaches:

Assigning at least one of a plurality of categories to each of said nodes, wherein said plurality of categories are based on a cardinality relationship indicated by one or more correlation predicates and one or more foreign key constraints in said underlying relational database (see Barsalou et al. page 255, column 2. Foreign key constraints are used, and page 249, "The Structural Model", and page 253, column 1);

Determining whether said update to said XML document can be reflected in said underlying relational database based on said assigning category (see Barsalou et al. page 253, section 5 "Updating through View Objects". Updates require local validation against the view-object definition and global validation against the structural model).

As to claim 4, Barsalou et al. as modified teaches further comprising the step of determining an update execution strategy based on said assigning category (see Barsalou et al. page 253, column 2, paragraph 1).

As to claim 12, Barsalou et al. does not teach a system for determining if an update to an XML document can be reflected in an underlying relational database, wherein said XML document is comprised of a tree of nodes,

Wang et al. teaches a system for determining if an update to an XML document can be reflected in an underlying relational database, wherein said XML document is comprised of a tree of nodes (see page 1, first paragraph)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Barsalou et al. by the teaching of Wang et al., since Wang et al. teaches that "XML has become the standard for interchanging data between web applications because of its modeling flexibility" (page 1, first paragraph).

Barsalou et al. as modified teaches:

a memory (see Wang et al. page 234);

At least one processor, couple to the memory (see Wang et al. page 234),  
operative to:

Assign at least one of a plurality of categories to each of said nodes, wherein said plurality of categories are based on a cardinality relationship indicated by one or more correlation predicates and one or more foreign key constraints in said underlying

relational database (see Barsalou et al. page 255, column 2. Foreign key constraints are used, and page 249, "The Structural Model", and page 253, column 1); and

Determine whether said update to said XML document can be reflected in said underlying relational database based on said assigning category (see Barsalou et al. page 253, section 5 "Updating through View Objects". Updates require local validation against the view-object definition and global validation against the structural model).

As to claim 15, Barsalou et al. as modified teaches wherein said processor is further configured to determine an update execution strategy based on said assigning category (see Barsalou et al. page 253, column 2, paragraph 1).

As to claim 16, Barsalou et al. does not teach an article of manufacture for determining if an update to an XML document can be reflected in an underlying relational database, wherein said XML document is comprised of a tree of nodes,

Wang et al. teaches an article of manufacture for determining if an update to an XML document can be reflected in an underlying relational database, wherein said XML document is comprised of a tree of nodes, (see page 1, first paragraph)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Barsalou et al. by the teaching of Wang et al., since Wang et al. teaches that "XML has become the standard for interchanging data between web applications because of its modeling flexibility" (page 1, first paragraph)

Barsalou et al. as modified teaches:

Assigning at least one of a plurality of categories to each of said nodes, wherein said plurality of categories are based on a cardinality relationship indicated by one or more correlation predicates and one or more foreign key constraints in said underlying relational database (see Barsalou et al. page 255, column 2. Foreign key constraints are used, and page 249, "The Structural Model", and page 253, column 1); and

Determining whether said update to said XML document can be reflected in said underlying relational database based on said assigning category (see Barsalou et al. page 253, section 5 "Updating through View Objects". Updates require local validation against the view-object definition and global validation against the structural model).

As to claim 19, Barsalou et al. as modified teaches wherein said processor is further configured to determine an update execution strategy based on said assigning category (see page 253, column 2, paragraph 1).

***Allowable Subject Matter***

8. Claims 5 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claim 6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

10. Applicant's arguments filed 26 December 2006 have been fully considered but they are not persuasive.

In response to the 35 U.S.C. 101 rejection, Examiner notes that only a determination occurs. There is nothing being done upon evaluating the results of this determination. There is no output to the user or action being taken. This produced result remains in the abstract and, thus, fails to achieve the required status of having real world value.

Examiner withdraws the 35 U.S.C. 112 rejections based upon indefinite optionally recited subject matter.

In regards to Applicant's argument to withdraw the 101 rejection, as referenced above on page 2, the claimed subject matter lacks a tangible result. There is nothing being done with the determination calculated in the claims. As such, it is unstatutory.

In regards to Applicant's Rule 131 Declaration filed on 26 December 2006:

Art Unit: 2164

a. Applicant is attempting to show conception of invention prior to September 2003, the effective date of Wang et al., coupled with diligence from just prior to the reference date until 28 January 2004.

#### I. Conception

The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts essentially to mere pleading, unsupported by proof or a showing of facts" and, thus, does not satisfy the requirements of 37 CFR 1.131(b). In re Borkowski, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also In re Harry, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when they occurred."). See MPEP 715.07.

b. The examiner has reviewed the exhibits and finds that they are sufficiently detailed that they may support conception given a properly structured affidavit, which provides a clear explanation of how the exhibits establish conception of the claimed invention.

c. Applicant has met the burden of clearly showing how the submitted evidence supports conception of the claimed invention.

#### II. Diligence

Art Unit: 2164

d. The evidence submitted is insufficient to establish a reduction to practice of the invention in this country or a NAFTA or WTO member country prior to the effective date of the Wang et al. reference. Paragraph 4 of the affidavit states that the test results cited in section 4.4 of Exhibit 2 are proof of a reduction to practice of one embodiment of the invention. However, upon reviewing Exhibit 2, Examiner notes that the test results are merely mentioned without being reported. A mere allegation of a reduction to practice is not sufficient proof of reduction to practice.

e. Examiner notes that the only instance of a date on either Exhibit 1 or Exhibit 2 to establish priority is found on Exhibit 1, which is an internal legal document, in the form of a filled in box and next to the signature of three of the four inventors. There is no outside verification as to the correctness of these dates.

f. The critical period for which diligence must be shown is from just before September 2003 (the effective date of Wang et al.) until 28 January 2004 (the effective filing date of the instant application). There is no evidence provided to prove diligence within this time frame.

g. If applicant wishes to rely on attorney diligence, a statement from the attorney may be needed. See MPEP 2138.06.

For the above reasons, the Examiner believes that the prior art Wang et al. is considered as a proper prior art and the rejection of the last office action is proper.

***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Adams whose telephone number is (571) 272-3938. The examiner can normally be reached on 8:30 AM - 5:00 PM, M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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